

AMENDMENTS TO THE CLAIMS

1. (Original) A refrigerant cycle apparatus in which a multistage compression type compressor constitutes a refrigerant circuit, including an electromotive element, and first and second compression elements driven by the electromotive element in an airtight container to suck a refrigerant gas having an intermediate pressure, which has been compressed by the first compression element, into the second compression element and to compress and discharge the refrigerant gas, the apparatus comprising:

a sensor for detecting a discharge refrigerant pressure of the first compression element; and a control device into which an output of the sensor is input,

wherein the control device detects reverse of the discharge refrigerant pressures of the first and second compression elements based on the discharge refrigerant pressure of the first compression element.

2. (Original) The refrigerant cycle apparatus according to claim 1, wherein the control device judges that the discharge refrigerant pressures of the first and second compression elements are reversed in a case where the discharge refrigerant pressure of the first compression element rises to a predetermined value.

3. (Original) A refrigerant cycle apparatus in which a multistage compression type compressor constitutes a refrigerant circuit, including an electromotive element, and first and second compression elements driven by the electromotive element in an airtight container to suck a refrigerant gas having an intermediate pressure, which has been compressed by the first

compression element, into the second compression element and to compress and discharge the refrigerant gas, the apparatus comprising:

a temperature sensor for detecting a discharge refrigerant temperature of the first compression element; and a control device into which an output of the temperature sensor is input,

wherein the control device detects reverse of the discharge refrigerant pressures of the first and second compression elements based on the discharge refrigerant temperature of the first compression element.

4. (Original) The refrigerant cycle apparatus according to claim 3, wherein the control device judges that the discharge refrigerant pressures of the first and second compression elements are reversed in a case where the discharge refrigerant temperature of the first compression element rises to a predetermined value.

5. (Original) A refrigerant cycle apparatus in which a multistage compression type compressor constitutes a refrigerant circuit, including an electromotive element, and first and second compression elements driven by the electromotive element in an airtight container to suck a refrigerant gas having an intermediate pressure, which has been compressed by the first compression element, into the second compression element and to compress and discharge the refrigerant gas, the apparatus comprising:

a first sensor for detecting a discharge refrigerant pressure of the first compression element; a second sensor for detecting a discharge refrigerant pressure of the second compression element; and a control device into which outputs of both the sensors are input,

wherein the control device detects reverse of the discharge refrigerant pressures of the first and second compression elements based on the discharge refrigerant pressures of the first and second compression elements.

6. (Original) A refrigerant cycle apparatus in which a multistage compression type compressor constitutes a refrigerant circuit, including an electromotive element, and first and second compression elements driven by the electromotive element in an airtight container to suck a refrigerant gas having an intermediate pressure, which has been compressed by the first compression element, into the second compression element and to compress and discharge the refrigerant gas, the apparatus comprising:

a first temperature sensor for detecting a discharge refrigerant temperature of the first compression element; a second temperature sensor for detecting a discharge refrigerant temperature of the second compression element; and a control device into which outputs of both the temperature sensors are input,

wherein the control device detects reverse of the discharge refrigerant pressures of the first and second compression elements based on the discharge refrigerant temperatures of the first and second compression elements.

7. (Original) The refrigerant cycle apparatus according to claim 6, wherein the control device judges that the discharge refrigerant pressures of the first and second compression elements are reversed in a case where the discharge refrigerant temperature of the first compression element is higher than that of the second compression element.

8. (Original) The refrigerant cycle apparatus according to claim 1, 2, 3, 4, 5, 6, or 7, wherein the control device reduces a valve opening of an expansion valve constituting the refrigerant circuit in a case where it is judged that the discharge refrigerant pressures of the first and second compression elements are reversed.

9. (Currently Amended) The refrigerant cycle apparatus according to claim 1, 2, 3, 4, 5, 6, or 7, ~~or 8~~, wherein the control device lowers the number of revolutions of the electromotive element in a case where it is judged that the discharge refrigerant pressures of the first and second compression elements are reversed.

10. (Currently Amended) The refrigerant cycle apparatus according to claim 1, 2, 3, 4, 5, 6, or 7, ~~8, or 9~~, wherein carbon dioxide is used as a refrigerant sealed in the refrigerant circuit.

11. (New) The refrigerant cycle apparatus according to claim 8, wherein the control device lowers the number of revolutions of the electromotive element in a case where it is judged that the discharge refrigerant pressures of the first and second compression elements are reversed.

12. (New) The refrigerant cycle apparatus according to claim 8, wherein carbon dioxide is used as a refrigerant sealed in the refrigerant circuit.

13. (New) The refrigerant cycle apparatus according to claim 9, wherein the carbon dioxide is used as a refrigerant sealed in the refrigerant circuit